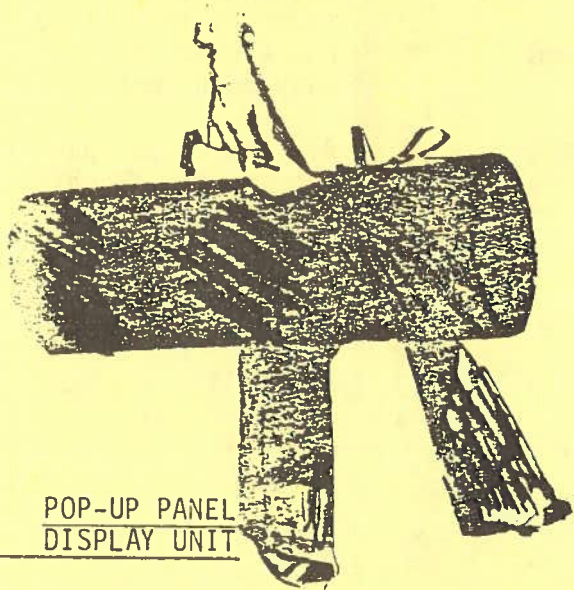




disaster preparedness report

May 1981
Vol. 1-3

National Weather Service

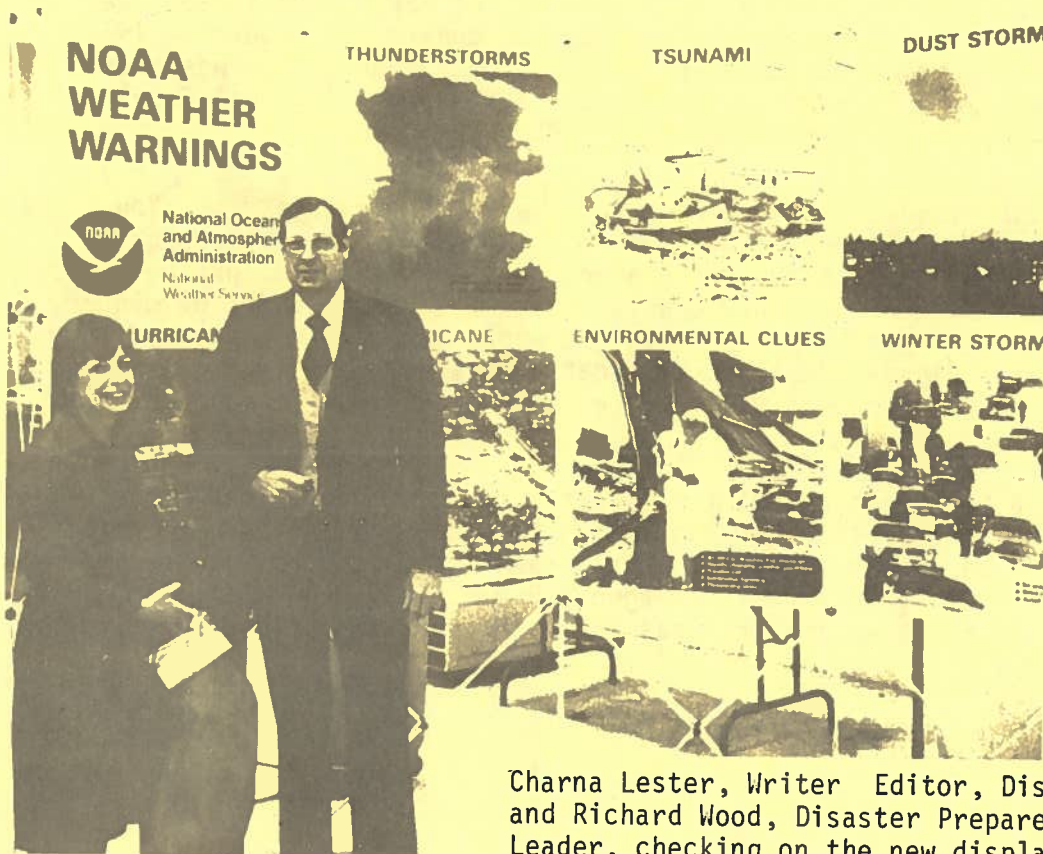


POP-UP PANEL
DISPLAY UNIT

All regions now have the severe weather panels for the Pop-up Display units. Contact your Regional Focal Point to reserve them for shows or meetings. The stand is carried with the panels in a small case. (Photo) The metal stand folds and unfolds easily and fits into the cloth bag that has the panel hooks attached. (Held by Charna Lester in the photo.) Display panels are made of a flexible fiberglass. The case with the panels weighs less than ten pounds. HOWEVER, since the panels are thin, they can become a problem if exposed to high temperatures. The manufacturer suggests that the materials never be left in extreme heat.

They also stress that mailing should be by air.

The displays were designed for use on all nine panels or for only six panels. The display can be set up to cover several categories of severe weather or to concentrate on a single category. If you feel you need a panel for some type of event that is not included, route your request through your Regional Focal Point and we will try to fill your request.



The display board and panels were assembled in the Gramax Building and we had good feedback. Hope you will have the same reactions.

Each severe weather unit (hurricane, flood, winter storm) is in a different color. The NOAA/NWS identifier panels are in three different formats, and will allow versatility in assembling your program.

Charna Lester, Writer Editor, Disaster Preparedness, and Richard Wood, Disaster Preparedness Program Leader, checking on the new display panels.

Questions regarding any item may be directed to National Weather Service, Gramax Building, Weather & Flood Warnings Staff, Wx5, 8060-13 Street, Silver Spring, Maryland 20910



Dave Livingston-OIC-Macon, set up a display at a recent show and was pleased with the interest shown by the public who viewed the easy-mount pop-up's.

Available, but panels not shown: Flash Floods, Hail, Urban Flooding, Rural Flooding, and Floods.

A computer foulup deleted all WSFO/WSO's from the Disaster Preparedness Report mailing list last fall. For this reason, the September 1980 issue and the January 1981 issue were reprinted and sent with the March 1981 issue. We have spot-checked some of the offices across the country to determine if any, some, or all of these issues were received. If your office was one that did not receive all three copies, please advise your Regional Focal Point.

The Floods, Flash Floods, and Warnings brochure is at the printers. You should have the new publication this summer. We found that neither Public Affairs nor our office has a full complement of recent disaster photographs. If you or anyone you know has (preferably) black and white photos of winter storms, floods, tornadoes, or hurricanes, we would appreciate copies of them being sent to us. Please identify the location, cause of the damage, and the date. If the photographer wants to be identified, we will send release forms.

Arkansas Power & Light recently let a contract for 3,000 radio receivers to be used in their emergency warning system to alert householders in rural areas to turn on secondary audio and visual warning indicators for special groups, such as hearing impaired. Emergency Broadcast System alert capability is built into the radio system Arkansas P&L is buying. (Courtesy Emergency Preparedness News.)

The March 18, 1981 issue of "Current Science" magazine contains a delightful article for students (the magazine is for children), including how to make weather instruments. The article quotes Pete Chaston, MIC-Rochester, who has been working with Dr. Ira Greer on implementing weather instruction into the Rochester school system. The project has been well received. The children are enthusiastic about reporting weather and making forecasts. The full article will be made into a chapter for the Disaster Preparedness Handbook.

If your Sunday newspaper has a section entitled, "The Mini Page", I'm sure you saw the April 19 insert entitled, "It's Tornado Season." This, too, is geared toward the younger set. Hopefully, school teachers across the country will use this as a means of instruction. (This will be included in the Handbook Chapter.)

Robert Carnahan, Chief, Weather and Flood Warnings Coordination Staff, conducted a Disaster Preparedness Session at the University of Miami with a group of meteorologists and hydrologists from all over the world. He took along an exercise entitled, "Hurricane Charna", (a simulation of Hurricane David). The group divided into teams to track the hurricane, to put out warnings, and to simulate working with civil defense groups in the affected vicinity. Bob reports the wrap-up discussion showed the participants were impressed with the scope of the task involved with preparedness planning for severe weather. Many requested copies of Disaster Preparedness materials so they could initiate similar programs in their respective countries.

WSO-Jackson, Kentucky, installed and activated a local warning radar. This unit is an important component of the Integrated Flood Observing and Warning System (IFLOWS) project, a facet of the Weather and Flood Warnings Coordination staff.

Reports of Tornado Awareness Week campaigns have been pouring into the DP office. The scope of work involved to make this ever-growing effort successful is apparent in the number of diversified projects involved. We recognize that many of you have devoted much time to help plan and put into action all ingredients necessary for the smooth operation of the plans. It is impossible to thank each of you individually, so we will do it this way. We also want to comment about the way those of you with FEMA affiliations in your areas coordinated with their staffs, combining materials and distribution methods. This contributed further to the overwhelming success.

Richard Wood, Program Leader, Disaster Preparedness, recently had an article entitled, "Tornado Season", published in Hazard Monthly, Journal of Civil Defense and Emergency Management News. The article outlined the Tornado Awareness Week's programs.

Michigan's Tornado Awareness Week meant a close relationship with all Michigan weather services and the civil defense units in that state. Of particular interest are the use of warning and response procedures. David Guenther-OIC, and Larry Wirth, Alliance, have been busy teaching. The subjects, of course, weather. In addition to the basic SKYWARN observing, the six-weeks course included basic meteorology, folklore, map reading, coding, and basic forecasting.

ELROY JAGLER-MIC, Milwaukee, has put much effort in getting local television stations to indicate severe weather on their screens. Their format is to use a big "W", and followup with a warning or severe weather forecast.

JOHN GRAFF-MIC, Minneapolis, has had another busy season. The Governor's Annual Natural Disaster Conference is something unique. It draws together for a 3-day conference all 87 Minnesota County Directors, Public Safety Commissioners, and all interests dedicated to the protection of life and property, the media, and, National Weather Service personnel, to discuss the previous year's progress in public safety. In addition, the group projects the forthcoming year's programs and budgets. The items of interest are those which hit that state--and they all make an appearance--thunderstorms, floods, tornadoes, and blizzards.

Governor Albert Quie attends wearing an official National Weather Service cap; he also displays his personal "Minnesota #1" rain gage (a presentation from Graff). Working closely with the MIC on this and other exciting projects are Deputy MIC-Ron Willis and DPM Focal Point, John Miller. These men have helped train persons to instruct volunteer observers in 34 counties--a team now totalling 12,000.

The State of Minnesota regards weather safety as a premium. All Highway Patrol officers are trained in the SKYWARN program. They must be certified weather spotters. Each year 6,200 new law enforcement officers are recruited--and an integral part of their training is also SKYWARN spotting. The program is of such importance that college credits are given. Graff also reports the use of an emergency network called ECIN (Emergency Coordination Information Notification). The participants in this project work with the Emergency Broadcast System. This means an instant alert to all concerned offices during severe weather threats.

--and who says there's nothing new in weather? The Minneapolis area now has implemented an 'OPEN LINE CONCEPT!' which allows simultaneous access to severe weather directly between where it is happening and the Weather Service Office. There is an 800 (toll-free) number to the Emergency Operations Centers in 34 cities that any of the 12,000 trained observers can call. They are immediately put on an open line to WSFO-MSP. The spotter immediately reports--with no time loss--to the forecaster on duty what is happening at exactly that time. The open line system allows for immediate analysis of the situation by NWS radar operations, and the field spotter. Safety features such as this do save lives.

The Association of Public Safety Commission Officers is having its 10th annual conference in Minneapolis. This group, representing 13 states, will hear from John Graff the basic effects of safety efforts in the Tornado Belt, how severe weather develops, safety measures, and identification and reporting of severe weather.

KARL SILVERMAN-Bismarck, has been instrumental in writing and working for the success of Bill 1093--which is now a statute on the books of North Dakota. Each school must have one monthly fire, tornado, or disaster emergency drill. Silverman worked very hard to set up a broadcast seminar in Minneapolis. There were 110 media representatives who talked at length about their dealings with NWS during both good and bad

weather. In addition to the 110 media representatives, the other 100 persons were from the private sector groups, such as university professors, communications corporations, and others interested in getting fast warnings to the public. This close cooperation between these public and private interests are a direct result of the continual public awareness programs set up by NWS personnel across the county. North Dakota will have its first Tornado Awareness Week beginning May 3. It will also have a statewide drill on May 6. North Dakota's Governor is concerned about public safety during severe weather threats. Mailings were made to all school, hospital, and nursing home administrators. Individual school districts also received an intensive overview of what will be happening and how to participate. Silverman has used the Public Service Announcements time and time again. We are looking forward to a report of the week's events.

STEVE SCHURR-DPM, Topeka, sent out on teletype a full scheduling of Spotter Training Meetings in the state of Kansas. This is an effective way to alert those who might not know of these meetings. Steve has been working with MIC-Phil Schidler to promote tornado safety throughout the state. They have merged with both Wichita and Goodland staff to provide training sessions and preparedness meetings.

ART BUCHWALD has some interesting weather definitions in a recent book, SLUSH-is what gathers when it gets warm and the ice and snow melt. Its main function is to accumulate at curbs and intersections where automobiles can splash it at people waiting for a bus or to cross the street. Splashing slush on people in the streets makes people in cars feel good and sometimes makes them feel as if the long, cold winter was all worthwhile.

NOAA Weather Radio is now being installed along Interstate 80 in Nebraska, according to Orval Jurgena-MIC, Lincoln. The Nebraska Department of Roads, with whom Jurgena has been working, has built and installed special antennas at each rest station so they can receive stronger signals. Now NWR can be heard from about 80 miles away. The Department officials also have purchased NWR's for installation in the Interstate maintenance shops so that crews will be abreast of weather. This means quicker beginnings of snow cleanup--imperative for travelers during winter months. Jurgena has also arranged to have NWR and Disaster Preparedness brochures at each of these stops--another good example of public awareness education.

LYLE HAMMER-MIC and DUANE BELING-SET, Eureka, have been recruiting and training volunteer weather observers from local Ham radio clubs. Special reporting procedures from observing locations to the WSO were outlined. Enthusiastic participants in turn have busily been recruiting for NWS.

The American Meteorological Society (AMS), in recognition of "...an exceptional prediction" presented their Special Award to the staff of the WSO at Wichita Falls. This, of course, was for their outstanding efforts during the April 10, 1979, tornado that caused such destruction and death. (Reprints of the NOAA Magazine article, "Marauders of the Red River Valley", telling the story of the Wichita Falls Tornado are available.) The Staff also received a Department of Commerce Gold Medal for their outstanding dedication during this same event.

Central Region has two persons designated as part-time Disaster Preparedness Focal Points--Jerry McDuffie, Sioux Falls, and John Feldt, Louisville. In our last issue your editor inadvertently deleted John's name in the list of Louisville's preparedness activities. We certainly do apologize as John's efforts have been outstanding.

The American Radio Relay League of Illinois cited the special efforts of Charles Stwertnik-DPM, Chicago, in helping organize their group into volunteer weather spotters.

BRIAN PETERS-DPM, Memphis, reports that more than one million copies of Tornado Safety information were used in a mailout by the Tennessee Bell Telephone Company.

Many states now have signs on their highways indicating that weather information is available at a designated point, such as Rest Areas. Both Mississippi and Ohio report their use of NWR for interstate travelers which means they have an instant window on weather. If you're listening to your NWR in Cincinnati, I'm sure you will recognize the new voice on their identifier tape--Johnny Bench of the Cincinnati Reds.

The state of Florida--so hurricane-prone, has recognized the need to educate residents about safety precautions. Fred Cramer-MIC, Tallahassee, reports that the latest issue of their telephone book includes two full pages of hurricane safety information and a tracking chart.

Now in stock at CLSC are PA75003, Hurricanes, Florida, and You, PA70012, Severe Storm Spotter Reporting Procedures and SKYWARN stickers. The new tornado public service announcement for TV with Janet Guthrie has been mailed to the regions. There will be two public service announcements out to you within the next few weeks, a second tornado spot and a new winter storms spot.

C. E. VICROY, Regional Hydrologist, visited Puerto Rico and St. Croix, V.I., recently. Vicroy, MIC-Jose Colon, and SH-Bob Calvesbert met with the Commonwealth Task Force for Flood Mitigation. They discussed the flash flood problem in Puerto Rico and began the initial planning for installation of event reporting rain gages for a flash flood warning system.

We can now add to the list of Awareness Weeks--Flash Floods. Washington State's first effort begins the week beginning May 11. Art Hull-MIC-WSFO, Seattle, and Chuck Ruscha have helped develop the program which includes participation by schools, private and public institutions, and intensive awareness programming by the media.

ELLIS BURTON-MIC-WSFO, Denver, John Schwab, Maurice Pautz, and Larry Tunnell have been actively promoting Colorado's first Flash Flood Awareness Week (May 10-16). Although Colorado is experiencing drought conditions, the project is in full swing.

CLAIRE JENSEN-MIC-WSFO, Phoenix, was elected recently to the Presidency of Arizona Emergency Services. Congratulations.

Recently we have received copies of some of the publications Weather Service Office personnel have developed, or helped develop, in their counties or states with area civil defense groups or other agencies. We have been pleased with the publications. Newton Skiles has contributed, "Tornadoes in Arkansas", Karl Silverman helped produce a tornado and severe weather booklet, and the State of Minnesota's manual for law enforcement training was put together with the special help of John Graff. All are excellent pieces. However, only if your editor gets into a conversation with someone who has worked with such a publication, do we even know they exist. If you have any materials on weather that you feel we should see, please have them forwarded to me through your Regional Focal Point (Charna Lester, Gramax Building, 8060 - 13th Street, Silver Spring, Maryland 20910).

Dave Bell-OIC, Erie, reports their Skywarn ham network has installed a 2-meter Ham radio which is activated during severe weather conditions. Rick Silverio, Vice-President of the county SKYWARN unit is pleased that tests showed a capability of receiving messages from as far as 50 miles away.

ACTION OF THE AMATEUR RADIO FRONT - WESTERN REGION

Washington:

WSFO-Seattle is deeply involved with expanding an already operational program utilizing ARES (Amateur Radio Emergency Services) in the state of Washington.

WSFO-Seattle has installed an antenna (furnished by ARES) on the roof of the Lake Union Building with a connector located at a desk near the forecast area. They have instituted in their Station Duty Manual and Mount St. Helens Contingency Plan a procedure to have a member of ARES called in. This person brings a portable radio for immediate weather input to the staff during emergencies. Two tests of the system have been conducted--one nationwide and one within the state.

On a routine basis, ARES provides daily (18Z) weather reports from approximately 30 stations in western Washington (initially 22 stations, last count 31). Twenty-two of these observers were given plastic rain gauges. The majority of the weather hams are located in the general vicinity of the Mount St. Helens' area (approximately 50 miles north and west of the mountain). The reports supplement and verify the Mount St. Helens raingauge network. A few reports are received from data sparse areas such as the San Juan Islands and the Olympic Peninsula. The ARES reporting network is being expanded to eastern Washington with priority locations being assigned to data sparse areas near river systems.

The reports are received at ARES Headquarters in Tacoma and stored in a TRS-80 computer. A phone call is then made to WSFO-Seattle, the data is transmitted to a Silent 700 terminal. Thus, with a minimum of effort, a complete report of current weather conditions including 24-hour precipitation is received in the forecast office each day at 10 a.m., PST (18Z).

California:

WSFO-Los Angeles has been in close contact with the Southern California React Council (SCRC), and are in the process of organizing the REACT members into a Severe Weather Observations Network.

Use of REACT provides observers on CB radios. However, WSFO-Los Angeles does not deal with each member on a one-to-one basis. Instead, they receive reports from the members via GMRS (General Mobile Radio Service) operators. GMRS is similar to Ham but it is smaller, less costly, and less restrictive.

REACT members have contact with GALTRANS and California Highway Patrol (CHP) and monitor Ch.9. When they receive a severe weather report, they will relay it to a GMRS monitor who (if not in West L.A.) will pass it on to a GMRS monitor near WSFO-LAX. This allows for only one call from an area near the WSFO. This does not require someone (staff or REACT) to be in the WSFO to monitor a radio.

Currently, the Santa Monica REACT team is organized. Santa Monica officers and the officers of the Southern California REACT Council have the WSFO-Los Angeles unlisted phone number and a few other toll-free numbers.

WSFO-San Francisco has contacted amateur radio operators in northern and central California resulting in the development of an amateur radio skywarn network covering much of their area. At last count, there were about 120 Hams in the network.

The Hams have given freely of their time and energy. They have developed the network; assigned responsibilities among their members; prepared a computerized listing of skywarn observers; and supplied us with mailing labels so that we could pass on instructions to their members. Several of their members have absorbed the price of long-distance telephone calls and/or trips to ensure that the SKYWARN network becomes a reality. During one significant weather event last fall, the Hams relayed many valuable weather reports.

To date, the Hams have not operated from the office. However, an antenna has been provided and is expected to be installed in the near future. In addition, WSFO-San Francisco has conducted very successful SKYWARN training sessions for the Hams.

Arizona:

WSFO-Phoenix has an excellent relationship with the Arizona Repeater Association (ARA), which is tied in with the Eastern Arizona Repeater Station (EARS). This is virtually a statewide network of Ham operators. During bad weather situations reports are solicited and made to a Central Control Operator (CCO) located in Phoenix. The CCO is Mrs. Gertrude Pond, an invalid, who guards the 2-meter frequency for hours on end. It is not unusual for her to sit by her ham "rig" for 24-36 hours at a time catching occasional catnaps.

WSFO-Phoenix has a scanner with a 2-meter crystal. This enables Phoenix to interpret all reports coming into the CCO. During the major storms of the last couple of years, they have used this system very effectively in collecting reports from data sparse or strategic areas.

Furthermore, ARA has agreed to bring a Ham set down to WSFO-Phoenix if deemed necessary and they will man it themselves or WSFO-Phoenix can use one of their two licensed operators.

In addition, WSFO's Boise, Great Falls, Salt Lake City, Portland, and Reno all report contacts with Amateur Radio organizations and interest in participation as spotters. We encourage all offices with county warning responsibility to pursue the use of Amateur Radio groups as spotters.

On Saturday, May 2, 1981, WSFO-Pittsburgh held its second Open House since completion of the facility in July 1980. MIC-Chet Hendricksen reports his staff conducted tours of radar, upper air releases, NWR, AFOS, satellite, RDO, and forecasting procedures. Disaster preparedness films were run continuously and drew large crowds. One of the highlights of the day was a live broadcast of the entire program from the forecast office by radio station KDKA. More than 600 persons attended.

Elroy Jagler-MIC, Milwaukee, was one of the guest speakers at a regional Red Cross seminar geared toward safety education. The meeting was held at Silver Lake, Wisconsin.

MIC-Salt Lake, William Alder reports that Utah will be declaring May "Flash Flood Preparedness Month." This project was a promotion by both the Colorado Basin RFC and the Salt Lake Forecast Office, with much help from the State of Utah Division of Comprehensive Management. Radio and television stations are using many of the NWS awareness materials to promote this program. The Governor of Utah, Scott Matheson, will host festivities in the Governor's Board Room in the State Capitol.

FOR DISPLAYING BROCHURES, BOOKLETS, ETC.

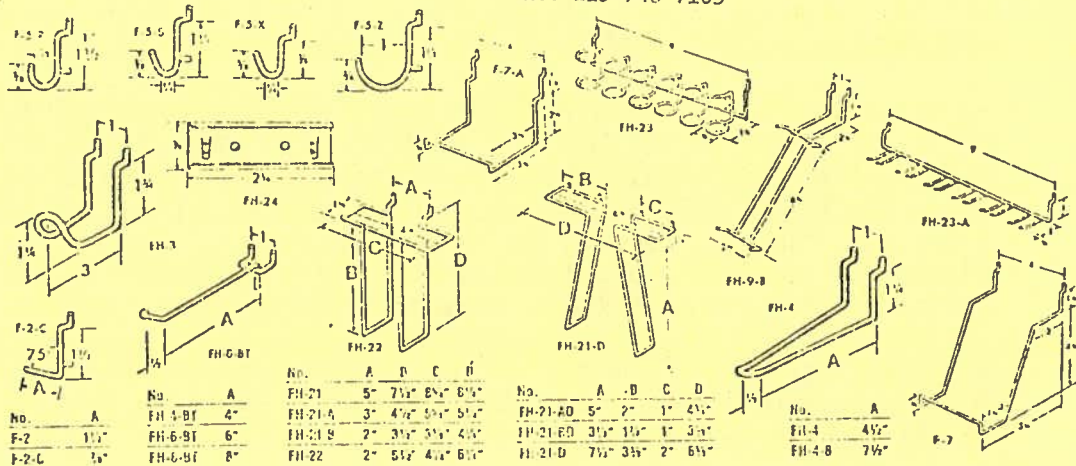
Our full line of literature racks is available in any quantity from the following distributors:

Spacesaver Hardware Co.
Attn: Mr. John Doyle
699 Ave. of the Americas
New York City, N.Y. 10010
Phone 212-924-1550

The Ladon Company
Attn: Mr. John Latham
1433 S. Wabash Avenue
Chicago, Ill., 60605
Phone: 312-922-0383

Campbell Equipment Co.
Attn: Mr. Bob MacIntosh
5231 S. Pennsylvania Ave.
Cudahy, WI., 53110
Phone 414-482-3840

C & R Store Equipment Co.
Attn: Mr. Curt Pondell
1406 S. Los Angeles St.
Los Angeles, CA., 90015
Phone: 213-748-7165



| FIXTURE NUMBER | DESCRIPTION | STANDARD PACKAGE | | | MASTER CARTON | | | THRIFT PACK | | | |
|----------------|-------------------------|-------------------------|----------------------|----------------|-------------------------|-----------------------|---------------------|-------------------------|-------------------------|------------------------|-----------------------|
| | | Approx. Weight Lbs.—Oz. | Pieces Per Std. Pkg. | Price Per Pkg. | Approx. Weight Lbs.—Oz. | Std. Pkgs. Per Carton | Price Per Std. Pkg. | Price Per Master Carton | Approx. Weight Lbs.—Oz. | Pieces Per Thrift Pack | Price Per Thrift Pack |
| F-2 | Single Hook, 1 1/2" | 1-14 | 100 | 5.70 | 61-4 | 30 | 5.60 | 168.00 | 5-10 | 300 | 16.40 |
| F-2-C | Single Hook, 7/8" | 1-8 | 100 | 5.70 | 51-0 | 30 | 5.00 | 168.00 | 4-14 | 300 | 16.40 |
| FH-3 | Double Loop Hook, 3" | 0-12 | 12 | 3.00 | 28-8 | 30 | 2.95 | 88.50 | 2-2 | 36 | 8.50 |
| FH-4 | Double Loop Hook, 5" | 0-12 | 12 | 3.45 | 30-14 | 30 | 3.40 | 102.00 | 2-8 | 36 | 9.65 |
| FH-4-BT | Single Hook 4" Ball Tip | 1-0 | 24 | 7.65 | 33-6 | 30 | 7.55 | 225.50 | 2-14 | 72 | 22.35 |
| FH-4-B | Single Hook 4" Ball Tip | 1-2 | 12 | 7.35 | 41-10 | 30 | 7.25 | 217.50 | 3-8 | 36 | 21.15 |
| FH-4-B | Double Loop Hook, 5" | 1-2 | 12 | 7.35 | 41-10 | 30 | 7.25 | 217.50 | 3-8 | 36 | 21.15 |
| F-5-R | Single Loop Hook, 1/2" | 1-8 | 100 | 5.70 | 50-10 | 30 | 5.00 | 168.00 | 4-14 | 300 | 16.40 |
| F-5-S | Single Loop Hook, 3/4" | 1-6 | 100 | 5.70 | 47-10 | 30 | 5.00 | 168.00 | 4-8 | 300 | 16.40 |
| F-5-X | Single Loop Hook, 1/2" | 1-0 | 100 | 3.40 | 33-12 | 30 | 3.35 | 100.50 | 3-0 | 300 | 9.80 |
| F-5-Z | Single Loop Hook, 1" | 1-14 | 100 | 7.55 | 63-10 | 30 | 7.40 | 222.00 | 5-12 | 300 | 21.50 |
| FH-6-BT | Single Hook 6" Ball Tip | 1-4 | 24 | 8.05 | 42-10 | 30 | 7.95 | 238.50 | 3-12 | 72 | 23.20 |
| F-7 | Easel, 5 1/2" | 1-10 | 12 | 12.20 | 18-6 | 10 | 11.95 | 119.50 | 4-8 | 36 | 34.90 |
| F-7A | Easel, 3 3/4" | 1-6 | 12 | 11.60 | 16-14 | 10 | 11.55 | 115.50 | 4-2 | 36 | 33.65 |
| FH-8-BT | Single Hook 8" Ball Tip | 1-8 | 24 | 8.95 | 48-6 | 30 | 8.80 | 261.00 | 4-5 | 72 | 25.45 |
| FH-9 | Single Shoe Bracket | 1-12 | 12 | 12.85 | 18-12 | 10 | 11.60 | 116.00 | 5-0 | 36 | 33.75 |
| FH-21 | Single Literature Rack | 3-10 | 12 | 17.85 | 30-14 | 10 | 17.55 | 175.50 | 10-0 | 36 | 51.50 |
| FH-21A | Single Literature Rack | 2-6 | 12 | 15.05 | 27-6 | 10 | 14.85 | 148.50 | 4-8 | 24 | 29.15 |
| FH-21A0 | Double Literature Rack | 2-6 | 12pr | 17.65 | 25-6 | 10 | 17.30 | 173.00 | 7-4 | 36pr | 50.75 |
| FH-21B | Comp. Literature Rack | 2-0 | 12 | 11.80 | 21-4 | 10 | 11.55 | 115.50 | 5-10 | 36 | 33.80 |
| FH-21B0 | Double Literature Rack | 1-8 | 12pr | 16.25 | 41-8 | 30 | 15.95 | 478.50 | 4-2 | 36pr | 45.50 |
| FH-21D | Double Literature Rack | 3-6 | 12pr | 24.25 | 35-10 | 10 | 23.80 | 238.00 | 10-2 | 36pr | 70.25 |
| FH-22 | Single Literature Rack | 2-6 | 12 | 14.05 | 28-2 | 10 | 13.85 | 138.50 | 7-10 | 36 | 40.70 |
| FH-23 | Master Book Holder | 3-4 | 12 | 17.40 | 35-6 | 10 | 17.15 | 171.50 | 10-2 | 36 | 50.40 |
| FH-23A | Master Book Holder | 3-2 | 24 | 24.45 | 33-10 | 10 | 24.45 | 244.50 | 9-6 | 72 | 71.50 |
| FH-24 | Practical Holder | 0-8 | 12 | 5.15 | 16-4 | 30 | 5.05 | 151.50 | 1-6 | 72 | 14.50 |

FH — for use with 1/2" Peg-Board Panels only

FH — for interchangeable use with 1/2" and 3/4" Peg-Board Panels

DISASTER PREPAREDNESS ROSTERNWS HEADQUARTERS STAFF 427-8090

| | | | |
|---------------------|----------------------------|-----------------------|---------------|
| Robert L. Carnahan | Chief, Wx & Flood Warnings | New Orleans (Focal) | 682-6891 |
| James B. Jones | Deputy Director | Fort Worth | 334-3401 |
| Richard (Dick) Wood | Prog. Leader, DP | Lubbock | 738-7362 |
| Charna Lester | Writer/Editor | Memphis | 222-3833 |
| Barbara Pakenham | Program Analyst | San Juan | 809-791-3490* |
| Betty Jo Norheim | Secretary | San Juan (Fl.Fl.Hyd.) | 809-791-3490* |
| Maria Rice | Secretary | | |

EASTERN REGION

| | | |
|----------------------|---------------------|----------|
| <u>William McKee</u> | Executive Officer | 665-7028 |
| Albert Kachic | Reg. Hydrologist | 665-8639 |
| Lynn Maximuk | Cleveland | 293-4949 |
| Mary Parker | Columbia, SC | 677-5501 |
| Rich Schwerdt | Washington, DC area | 763-8300 |
| Dave Curtis | Hartford, RFC | 244-2178 |
| Phil Neff | Harrisburg, RFC | 590-2256 |

Focal Points

| | | |
|-------------------|------------|-----------------|
| Robert Kilpatrick | Albany | 562-6586 |
| Frank Brody | Charleston | 924-1405 |
| Jim Allen | New York | 662-5569 |
| Dave Sisk | Pittsburgh | 722-2882 |
| Vacant | Raleigh | 672-4436 |

SOUTHERN REGION

| | | |
|---------------------|--------------------|----------|
| <u>Larry Mooney</u> | Regional DPM (FTW) | 334-2812 |
| Marvin Maddox | Atlanta | 246-7586 |
| Jay Shelley | Birmingham | 229-1549 |
| Steve Rich | Jackson | 490-4639 |
| Newton Skiles | Little Rock | 740-5331 |
| Neil Marchbank | Oklahoma City | 749-4155 |
| Clifford Brock | San Antonio | 730-5025 |
| Robert Case | Miami (Focal) | 350-5547 |

CENTRAL REGION

| | | |
|-------------------------------|-------------------------|----------|
| <u>Laurence (Bud) Shaffer</u> | Asst. Chief, MSD-KC, MO | 758-3239 |
| Ken King | Fl. Flood Coord. | 758-3229 |
| Charles Stwertnik | Chicago | 353-4680 |
| Robert Corbett | Des Moines | 862-4492 |
| Kenneth Rizzo | Ann Arbor | 378-2220 |
| William Gery | Indianapolis | 331-5411 |
| Guy Tucker | St. Louis | 279-7018 |
| Steven Schurr | Topeka | 752-2630 |
| John Feldt | Louisville | 352-5210 |
| Jerry McDuffie | Stouxs Falls | 862-3030 |

WESTERN REGION

| | | |
|-------------------------|-------------------------------|----------|
| <u>Richard Hutcheon</u> | Public Serv. Met. (Salt Lake) | 588-4000 |
| Tony Haffer | Deputy Reg. Hydrologist | 588-5137 |

ALASKA REGION

| | | |
|-----------------|----------------------|----------|
| Burt Goldenberg | Chief, MSD-Anchorage | 271-5127 |
| Dial Seattle | Operator | 399-0150 |

PACIFIC REGION

| | | |
|--------------------|-------------------|----------|
| Vacant | DPPF/FL.Fl. Spec. | 836-1831 |
| Dial San Francisco | Operator | 556-0220 |

All numbers listed are FTS unless otherwise indicated
 *Dial Washington FTS Operator to get overseas FTS operator (809-791-3490)

